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(54) Title: GAS LASER

(57) Abstract

A gas laser including an annular optical cavity defined by a pair of coaxial spaced electrodes which produces an annular coherent beam of a first diameter and a first thickness. A mirror structure is located at one end of the annular optical cavity and includes a first mirror surface which is operative to decrease the diameter of the annular coherent beam from the first diameter and to expand the thickness of the annular coherent beam from the first thickness, a second mirror surface which is operative to focus a beam reflected by the first mirror surface to a location located interiorly of the pair of coaxial spaced electrodes, a third mirror surface located at an opposite end of the annular optical cavity, and an output coupler operative to receive, reflect and transmit a beam reflected by the second mirror surface.